



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

THOMAS BOCK
HANS TILLMAN
MICHAEL MANNS
CHRISTIAN TRAUTWEIN
STEPHEN ALISTER LOCARNINI
JOSEPH TORRESI

Group Art Unit: 1648

Examiner: Bao Q. Li

Atty. Dkt. No.: 4421.000200
(formerly 4420.000600)

Serial No.: 09/877,340

Filed: June 8, 2000

For: VIRAL VARIANTS AND USES
THEREFOR

#10
Statement re;
PATENT
Seq. Dist.
11/6/02
RECEIVED
OCT 31 2002
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STATEMENT AS REQUIRED UNDER 37 C.F.R. § 1.825(A) and (B)
AND STATEMENT AS REQUIRED UNDER 37 C.F.R. § 1.821(g)

BOX SEQUENCE

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

CERTIFICATE OF MAILING
37 C.F.R. 1.8

I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on the date below:

October 22, 2002

Date

Mark D. Moore

Mark D. Moore

Submitted herewith is a substitute computer readable form and a substitute paper copy of the sequence listing of those sequences in the captioned patent application, wherein minor errors have been corrected. The substitute computer readable form of the sequence listing is the same as the substitute paper copy of the sequence listing. The sequence information provided in the Specification is also the same as the sequence listing of the enclosed substitute computer readable and paper forms of the sequence listing.

In accordance with 37 C.F.R. § 1.821(g), it is herewith represented that no new matter is included with this submission.

Respectfully submitted,

Date: October 22, 2002



Mark D. Moore
Reg. No. 42,903
WILLIAMS, MORGAN & AMERSON
7676 Hillmont, Suite 250
Houston, Texas 77040
(713) 934-4084
(713) 934-7011 (facsimile)

AGENT FOR APPLICANTS

RAW SEQUENCE LISTING
ERROR REPORT



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/877,340
Source: OIPE
Date Processed by STIC: 2/11/2002

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE **CHECKER**
VERSION 3.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND
TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail. Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom. Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/efc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202
3. Hand Carry directly to:
U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7th Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202
Or
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 01/29/2002



Raw Sequence Listing Error Summary

ERROR DETECTED

SUGGESTED CORRECTION

SERIAL NUMBER: 09/877,340

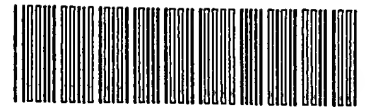
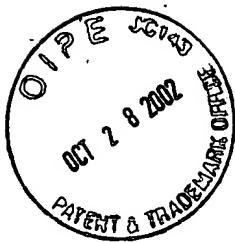
ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 Wrapped Nucleics
 Wrapped Aminos The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."
- 2 Invalid Line Length The rules require that a line not exceed 72 characters in length. This includes white spaces.
- 3 Misaligned Amino
 Numbering The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.
- 4 Non-ASCII The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.
- 5 Variable Length Sequence(s) contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
- 6 PatentIn 2.0
 "bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) . Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.
- 7 Skipped Sequences
 (OLD RULES) Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence:
 (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
 (ii) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
 (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
 This sequence is intentionally skipped

 Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.
- 8 Skipped Sequences
 (NEW RULES) Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence.
 <210> sequence id number
 <400> sequence id number
 000
- 9 Use of n's or Xaa's
 (NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing.
 Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
 In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
- 10 Invalid <213>
 Response Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence
- 11 Use of <220> Sequence(s) 1,2 missing the <220> "Feature" and associated numeric identifiers and responses.
 Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
 (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
- 12 PatentIn 2.0
 "bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.
- 13 Misuse of n n can only be used to represent a single nucleotide in a nucleic acid sequence. N is not used to represent any value not specifically a nucleotide.

AMC/MH - Biotechnology Systems Branch - 08/21/2001

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OIPE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/877,340

DATE: 02/11/2002

TIME: 09:29:17

Input Set : A:\Sequence Listing.txt

Output Set: N:\CRF3\02112002\I877340.raw

Does Not Comply
Corrected Diskette Needed

pp 1,3

Q- ->

3 <110> APPLICANT: BOCK, THOMAS
4 TILLMAN, HANS
5 MANNS, MICHAEL
6 TRAUTWEIN, CHRISTIAN
7 LOCARNINI, STEPHEN ALISTER
8 TORRESI, JOSEPH
10 <120> TITLE OF INVENTION: VIRAL VARIANTS AND USES THEREFOR
12 <130> FILE REFERENCE: 4420.000600
14 <140> CURRENT APPLICATION NUMBER: 09/877,340
15 <141> CURRENT FILING DATE: 2002-01-16
17 <150> PRIOR APPLICATION NUMBER: 60/210,395
18 <151> PRIOR FILING DATE: 2000-06-09
20 <160> NUMBER OF SEQ ID NOS: 18
22 <170> SOFTWARE: PatentIn version 3.0
24 <210> SEQ ID NO: 1
25 <211> LENGTH: 76
26 <212> TYPE: PRT
27 <213> ORGANISM: UNKNOWN
29 <220> FEATURE:
30 <221> NAME/KEY: PEPTIDE
31 <222> LOCATION: (2)..(2)
32 <223> OTHER INFORMATION: X = L, R, or I
35 <220> FEATURE:
36 <221> NAME/KEY: PEPTIDE
37 <222> LOCATION: (3)..(3)
38 <223> OTHER INFORMATION: X = E or D
41 <220> FEATURE:
42 <221> NAME/KEY: PEPTIDE
43 <222> LOCATION: (9)..(9)
44 <223> OTHER INFORMATION: X = T, D, A, N, or Y
47 <220> FEATURE:
48 <221> NAME/KEY: PEPTIDE
49 <222> LOCATION: (10)..(10)
50 <223> OTHER INFORMATION: X = E or D
53 <220> FEATURE:
54 <221> NAME/KEY: PEPTIDE
55 <222> LOCATION: (13)..(13)
56 <223> OTHER INFORMATION: X = E, K, or Q
59 <220> FEATURE:
60 <221> NAME/KEY: PEPTIDE
61 <222> LOCATION: (15)..(15)
62 <223> OTHER INFORMATION: X = H, R, or N
65 <220> FEATURE:

see item 11 on Error Summary Sheet

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RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/877,340

DATE: 02/11/2002
TIME: 09:29:17

Input Set : A:\Sequence Listing.txt
Output Set: N:\CRF3\02112002\I877340.raw

66 <221> NAME/KEY: PEPTIDE
67 <222> LOCATION: (18)..(18)
68 <223> OTHER INFORMATION: X = I or T
71 <220> FEATURE:
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73 <222> LOCATION: (23)..(23)
74 <223> OTHER INFORMATION: X = A or S
77 <220> FEATURE:
78 <221> NAME/KEY: PEPTIDE
79 <222> LOCATION: (26)..(26)
80 <223> OTHER INFORMATION: X = T or R
83 <220> FEATURE:
84 <221> NAME/KEY: PEPTIDE
85 <222> LOCATION: (40)..(40)
86 <223> OTHER INFORMATION: X = A, T, or S
89 <220> FEATURE:
90 <221> NAME/KEY: PEPTIDE
91 <222> LOCATION: (43)..(43)
92 <223> OTHER INFORMATION: X = R or T
95 <220> FEATURE:
96 <221> NAME/KEY: PEPTIDE
97 <222> LOCATION: (45)..(45)
98 <223> OTHER INFORMATION: X = V or G
101 <220> FEATURE:
102 <221> NAME/KEY: PEPTIDE
103 <222> LOCATION: (55)..(55)
104 <223> OTHER INFORMATION: X = S, I, T, N, or V
107 <220> FEATURE:
108 <221> NAME/KEY: PEPTIDE
109 <222> LOCATION: (56)..(56)
110 <223> OTHER INFORMATION: X = T, S, H, or Y
113 <220> FEATURE:
114 <221> NAME/KEY: PEPTIDE
115 <222> LOCATION: (57)..(57)
116 <223> OTHER INFORMATION: X = R, H, K, or Q
119 <220> FEATURE:
120 <221> NAME/KEY: PEPTIDE
121 <222> LOCATION: (69)..(69)
122 <223> OTHER INFORMATION: X = Q or P
125 <400> SEQUENCE: 1

W--> 127 Leu Xaa Xaa Asp Trp Gly Pro Cys Xaa Xaa His Gly Xaa His Xaa Ile
128 1 5 10 15
W--> 130 Arg Xaa Pro Arg Thr Pro Xaa Arg Val Xaa Gly Gly Val Phe Leu Val
131 20 25 30
W--> 133 Asp Lys Asn Pro His Asn Thr Xaa Glu Ser Xaa Leu Xaa Val Asp Phe
134 35 40 45
W--> 136 Ser Gln Phe Ser Arg Gly Xaa Xaa Xaa Val Ser Trp Pro Lys Phe Ala
137 50 55 60
W--> 139 Val Pro Asn Leu Xaa Ser Leu Thr Asn Leu Leu Ser

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/877,340

DATE: 02/11/2002
TIME: 09:29:17

Input Set : A:\Sequence Listing.txt
Output Set: N:\CRF3\02112002\I877340.raw

140 65 70 75
142 <210> SEQ ID NO: 2
143 <211> LENGTH: 181
144 <212> TYPE: PRT
145 <213> ORGANISM: UNKNOWN *same as seq. 1*
147 <220> FEATURE:
148 <221> NAME/KEY: PEPTIDE
149 <222> LOCATION: (2)..(2)
150 <223> OTHER INFORMATION: X = N or D
153 <220> FEATURE:
154 <221> NAME/KEY: PEPTIDE
155 <222> LOCATION: (17)..(17)
156 <223> OTHER INFORMATION: X = I or P
159 <220> FEATURE:
160 <221> NAME/KEY: PEPTIDE
161 <222> LOCATION: (29)..(29)
162 <223> OTHER INFORMATION: X = I or V
165 <220> FEATURE:
166 <221> NAME/KEY: PEPTIDE
167 <222> LOCATION: (35)..(35)
168 <223> OTHER INFORMATION: X = S or D
171 <220> FEATURE:
172 <221> NAME/KEY: PEPTIDE
173 <222> LOCATION: (44)..(44)
174 <223> OTHER INFORMATION: X = T or N
177 <220> FEATURE:
178 <221> NAME/KEY: PEPTIDE
179 <222> LOCATION: (46)..(46)
180 <223> OTHER INFORMATION: X = R or N
183 <220> FEATURE:
184 <221> NAME/KEY: PEPTIDE
185 <222> LOCATION: (47)..(47)
186 <223> OTHER INFORMATION: X = N or I
189 <220> FEATURE:
190 <221> NAME/KEY: PEPTIDE
191 <222> LOCATION: (48)..(48)
192 <223> OTHER INFORMATION: X = ANY AMINO ACID
195 <220> FEATURE:
196 <221> NAME/KEY: PEPTIDE
197 <222> LOCATION: (50)..(50)
198 <223> OTHER INFORMATION: X = N, Y, or H
201 <220> FEATURE:
202 <221> NAME/KEY: PEPTIDE
203 <222> LOCATION: (52)..(52)
204 <223> OTHER INFORMATION: X = H or Y
207 <220> FEATURE:
208 <221> NAME/KEY: PEPTIDE
209 <222> LOCATION: (53)..(53)
210 <223> OTHER INFORMATION: X = G or R

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/877,340

DATE: 02/11/2002

TIME: 09:29:17

Input Set : A:\Sequence Listing.txt

Output Set: N:\CRF3\02112002\I877340.raw

213 <220> FEATURE:
214 <221> NAME/KEY: PEPTIDE
215 <222> LOCATION: (54)..(54)
216 <223> OTHER INFORMATION: X = ANY AMINO ACID
219 <220> FEATURE:
220 <221> NAME/KEY: PEPTIDE
221 <222> LOCATION: (55)..(55)
222 <223> OTHER INFORMATION: X = ANY AMINO ACID
225 <220> FEATURE:
226 <221> NAME/KEY: PEPTIDE
227 <222> LOCATION: (56)..(56)
228 <223> OTHER INFORMATION: X = ANY AMINO ACID
231 <220> FEATURE:
232 <221> NAME/KEY: PEPTIDE
233 <222> LOCATION: (57)..(57)
234 <223> OTHER INFORMATION: X = D or N
237 <220> FEATURE:
238 <221> NAME/KEY: PEPTIDE
239 <222> LOCATION: (60)..(60)
240 <223> OTHER INFORMATION: X = D or N
243 <220> FEATURE:
244 <221> NAME/KEY: PEPTIDE
245 <222> LOCATION: (61)..(61)
246 <223> OTHER INFORMATION: X = S or Y
249 <220> FEATURE:
250 <221> NAME/KEY: PEPTIDE
251 <222> LOCATION: (65)..(65)
252 <223> OTHER INFORMATION: X = N or Q
255 <220> FEATURE:
256 <221> NAME/KEY: PEPTIDE
257 <222> LOCATION: (71)..(71)
258 <223> OTHER INFORMATION: X = L or M
261 <220> FEATURE:
262 <221> NAME/KEY: PEPTIDE
263 <222> LOCATION: (75)..(75)
264 <223> OTHER INFORMATION: X = K or Q
267 <220> FEATURE:
268 <221> NAME/KEY: PEPTIDE
269 <222> LOCATION: (77)..(77)
270 <223> OTHER INFORMATION: X = Y or F
273 <220> FEATURE:
274 <221> NAME/KEY: PEPTIDE
275 <222> LOCATION: (79)..(79)
276 <223> OTHER INFORMATION: X = R or W
279 <220> FEATURE:
280 <221> NAME/KEY: PEPTIDE
281 <222> LOCATION: (84)..(84)
282 <223> OTHER INFORMATION: X = Y or L
285 <220> FEATURE:

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/877,340

DATE: 02/11/2002

TIME: 09:29:17

Input Set : A:\Sequence Listing.txt

Output Set: N:\CRF3\02112002\I877340.raw

286 <221> NAME/KEY: PEPTIDE
287 <222> LOCATION: (85)..(85)
288 <223> OTHER INFORMATION: X = S or A
291 <220> FEATURE:
292 <221> NAME/KEY: PEPTIDE
293 <222> LOCATION: (89)..(89)
294 <223> OTHER INFORMATION: X = I or V
297 <220> FEATURE:
298 <221> NAME/KEY: PEPTIDE
299 <222> LOCATION: (95)..(95)
300 <223> OTHER INFORMATION: X = I or L
303 <220> FEATURE:
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305 <222> LOCATION: (99)..(99)
306 <223> OTHER INFORMATION: X = V or G
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311 <222> LOCATION: (114)..(114)
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324 <223> OTHER INFORMATION: X = V or M
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329 <222> LOCATION: (117)..(117)
330 <223> OTHER INFORMATION: X = V or T
333 <220> FEATURE:
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335 <222> LOCATION: (118)..(118)
336 <223> OTHER INFORMATION: X = R or C
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341 <222> LOCATION: (122)..(122)
342 <223> OTHER INFORMATION: X = F or P
345 <220> FEATURE:
346 <221> NAME/KEY: PEPTIDE
347 <222> LOCATION: (125)..(125)
348 <223> OTHER INFORMATION: X = L or V
351 <220> FEATURE:
352 <221> NAME/KEY: PEPTIDE
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354 <223> OTHER INFORMATION: X = A or V
357 <220> FEATURE:
358 <221> NAME/KEY: PEPTIDE

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/877,340

DATE: 02/11/2002

TIME: 09:29:18

Input Set : A:\Sequence Listing.txt

Output Set: N:\CRF3\02112002\I877340.raw

L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:127 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:130 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:133 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:136 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:139 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:473 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:476 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:479 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:482 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:485 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:488 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:491 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
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L:503 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:506 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2